

# Transportation and Communities

## Transportation Planning Workshop North Dakota January 28, 2014

Federal Highway Administration  
U. S. Department of Transportation

Jim Thorne

# Session Objectives

- Consider the importance of transportation in our communities
- Identify transportation challenges
- Discuss the relationship between transportation and land use
- Plan a problem solving approach

# What do we want from our transportation system?



# Transportation is Important

Our transportation system supports our economy and lifestyle

(Access to destinations and activities, mobility)

Transportation facilities have major impact on community's character

(Structure, connections, context)

Transportation system is vital link in supply chain

(agriculture, tourism, resource extraction)

What are the transportation issues and challenges in your community?

- **Capacity** — not adequate for demand
- **Connectivity** — interstate access, transit, rail service
- **Safety** — high fatality rate, higher speeds, emergency response times
- **Deficient Conditions** — pavement and bridge condition

# Land Use and Transportation Connection



# What Do We Mean by Land Use?

- Human development, land management

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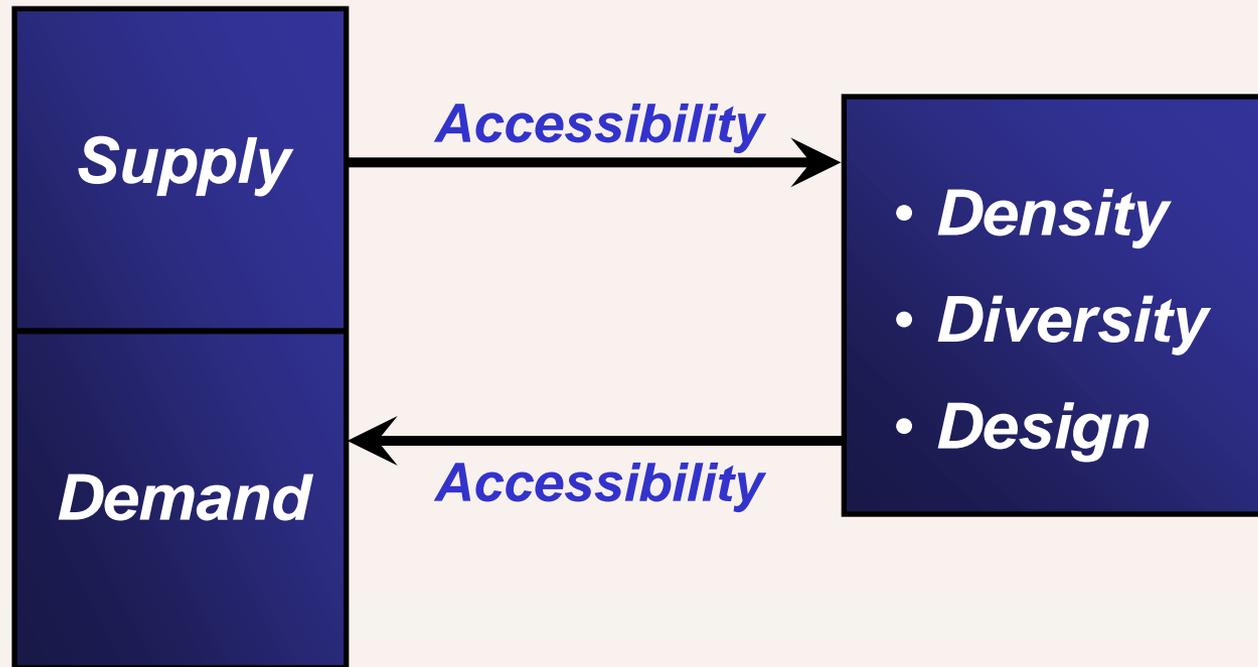
- Type of use (residential, commercial, industrial, agricultural, etc.)
- Density
- Mix of uses in an area
- Design characteristics



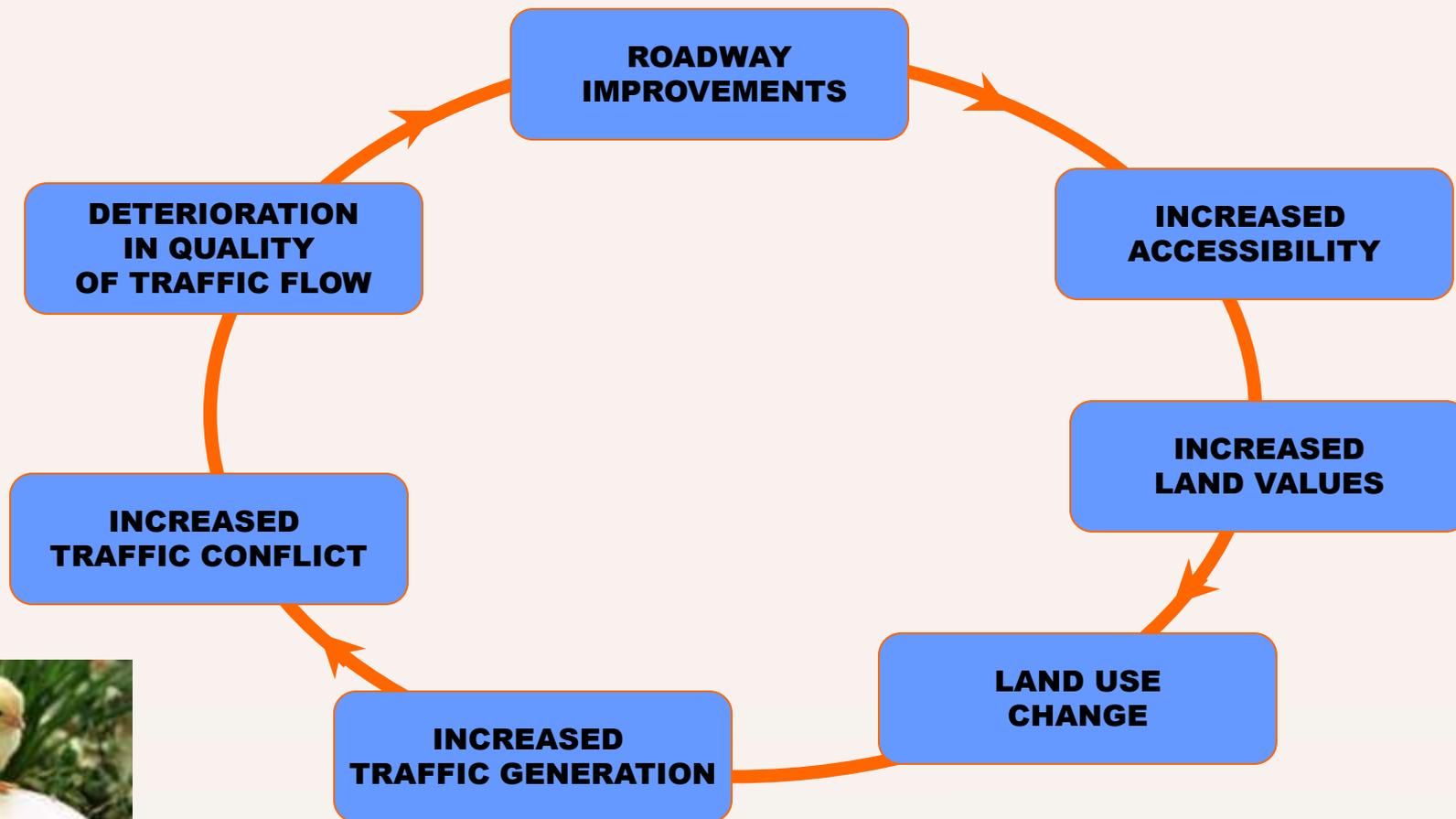
# Transportation and Land Use - A Two-Way Street

**TRANSPORTATION**

**LAND USE**



# Transportation & Land Use Cycle



# Pennsylvania Department of Transportation Smart Transportation Presentation



# Pennsylvania Department of Transportation Smart Transportation Presentation



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# Land Use – Transportation Cycle

Lovell Road and I-40 40 years ago and today



# Factors in Development Decisions



**Federal Highway Administration**  
Influence of Transportation Infrastructure on Land Use

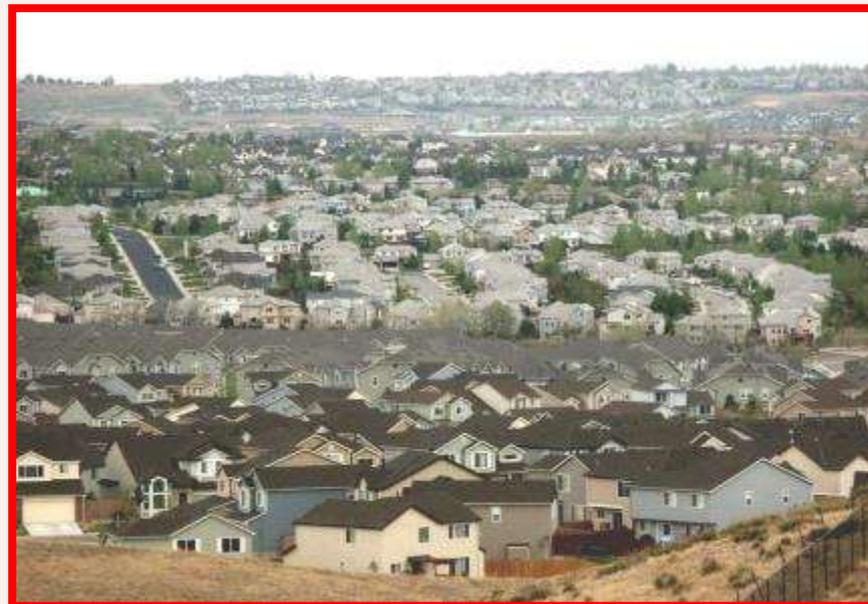
- Local economy
- Land values
- Zoning
- Environmental factors  
(topography, geology, etc.)
- Access to transportation infrastructure
- Other infrastructure  
(water, sewer, broadband, etc.)
- Any Others?

December 6, 8, 2004  
Washington, D.C.  
A ULI Advisory Services Workshop Report

ULI—the Urban Land Institute  
1825 Thomas Jefferson Street, N.W.  
Suite 500 West  
Washington, D.C. 20007-2801

# Who Benefits and Who Pays?

- Local land use decisions impact the regional transportation system
- Local governments rarely consider the longer-term, more widespread costs of their local land use decisions on transportation
- Most major (high cost) transportation improvements rely on limited state/federal funds



Accelerated growth due to improved transportation system can fall on unprepared local governments

# Roles and Responsibilities

Roles and responsibilities vary greatly between and within States:

- Land use decisions are primarily made at the local level
- Transportation decisions for major projects involve local, regional, state and federal agencies

# “Trend Is Not Destiny”

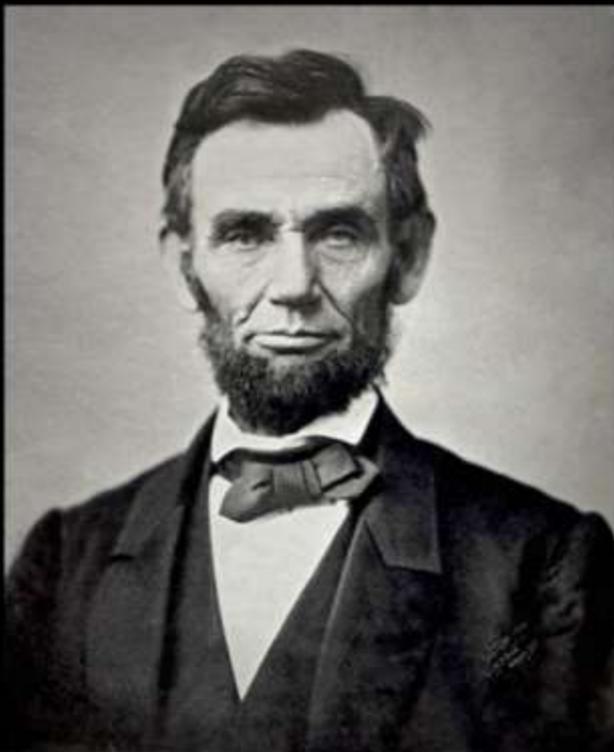
Lewis Mumford



Photo: Port of Portland

# The Road Ahead

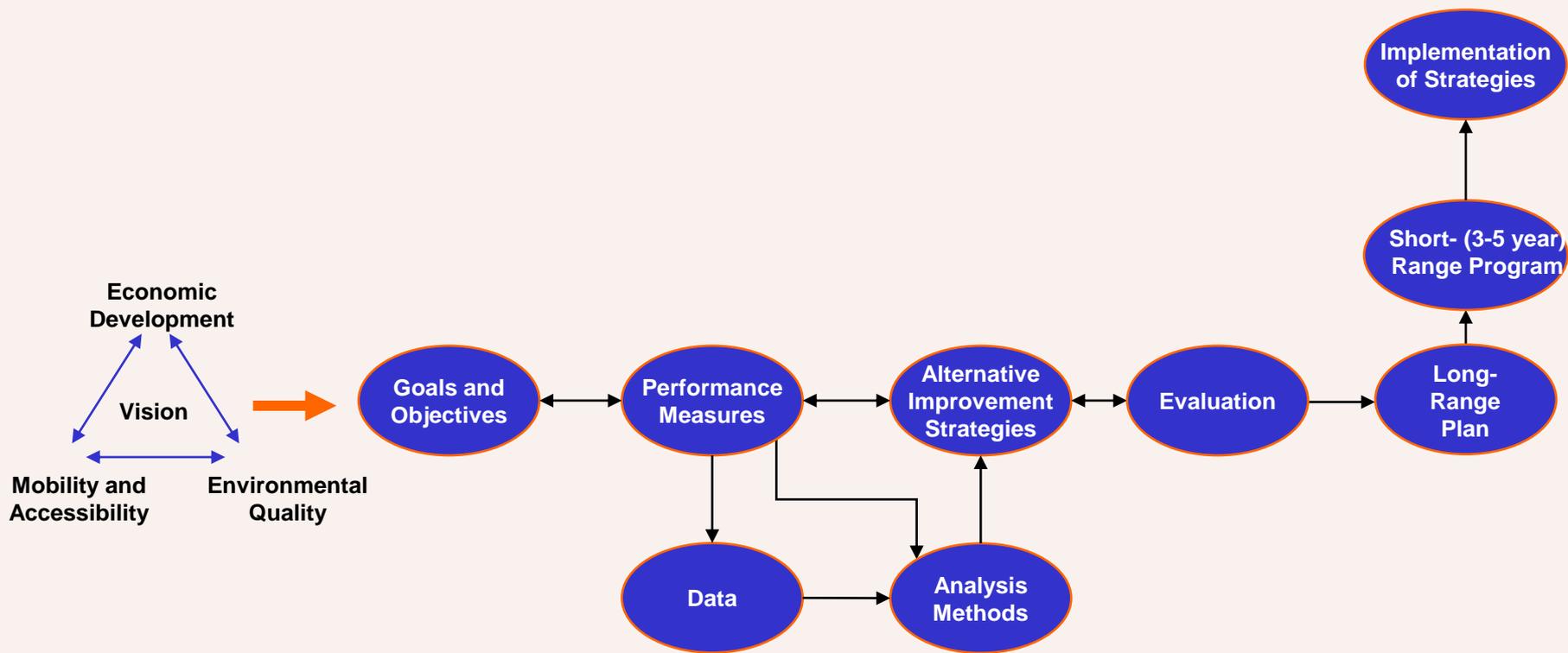




*“The Best Way  
to Predict the  
Future is to  
Create It.”*

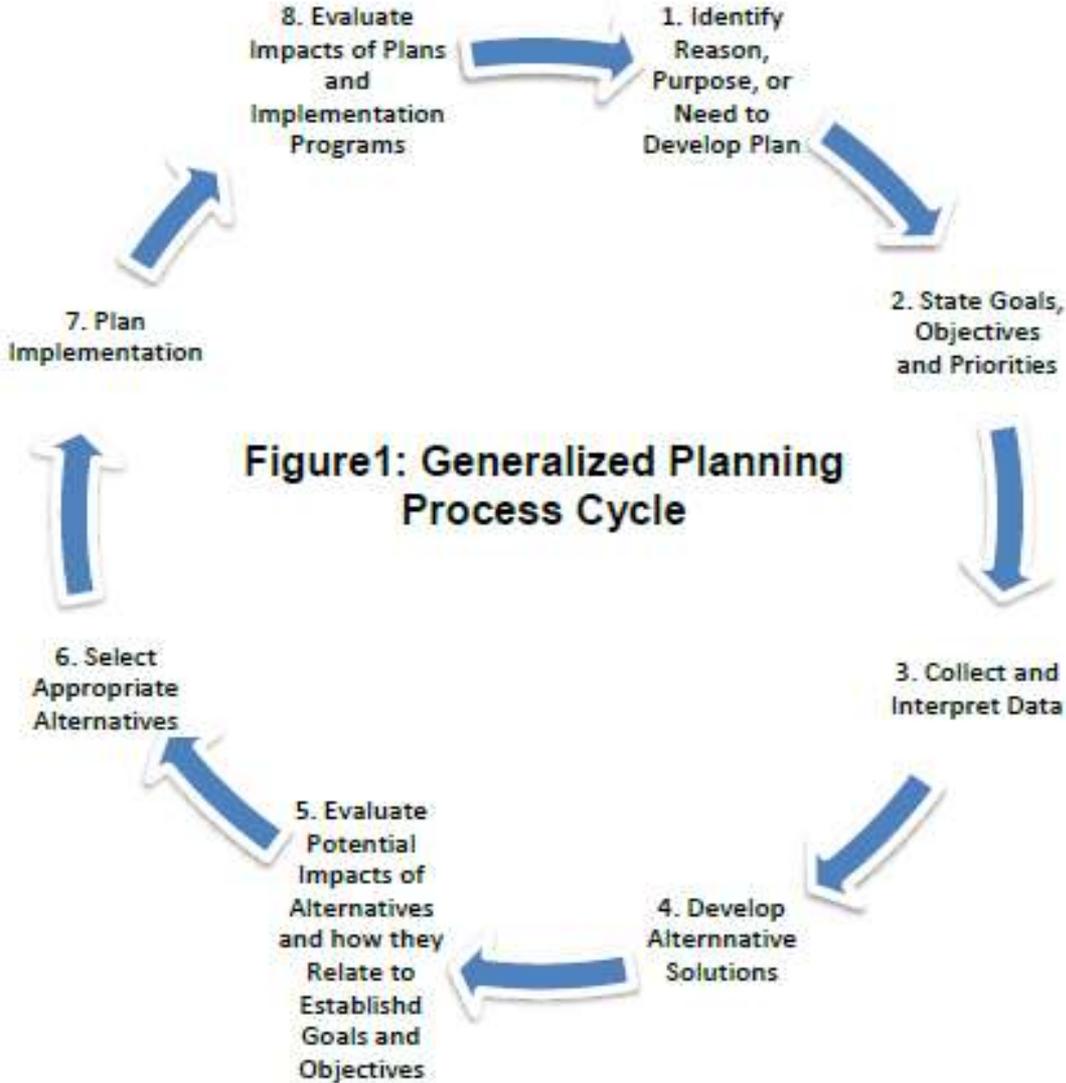
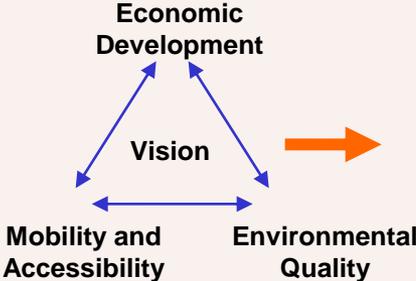
- Abraham Lincoln

# Transportation Planning Process

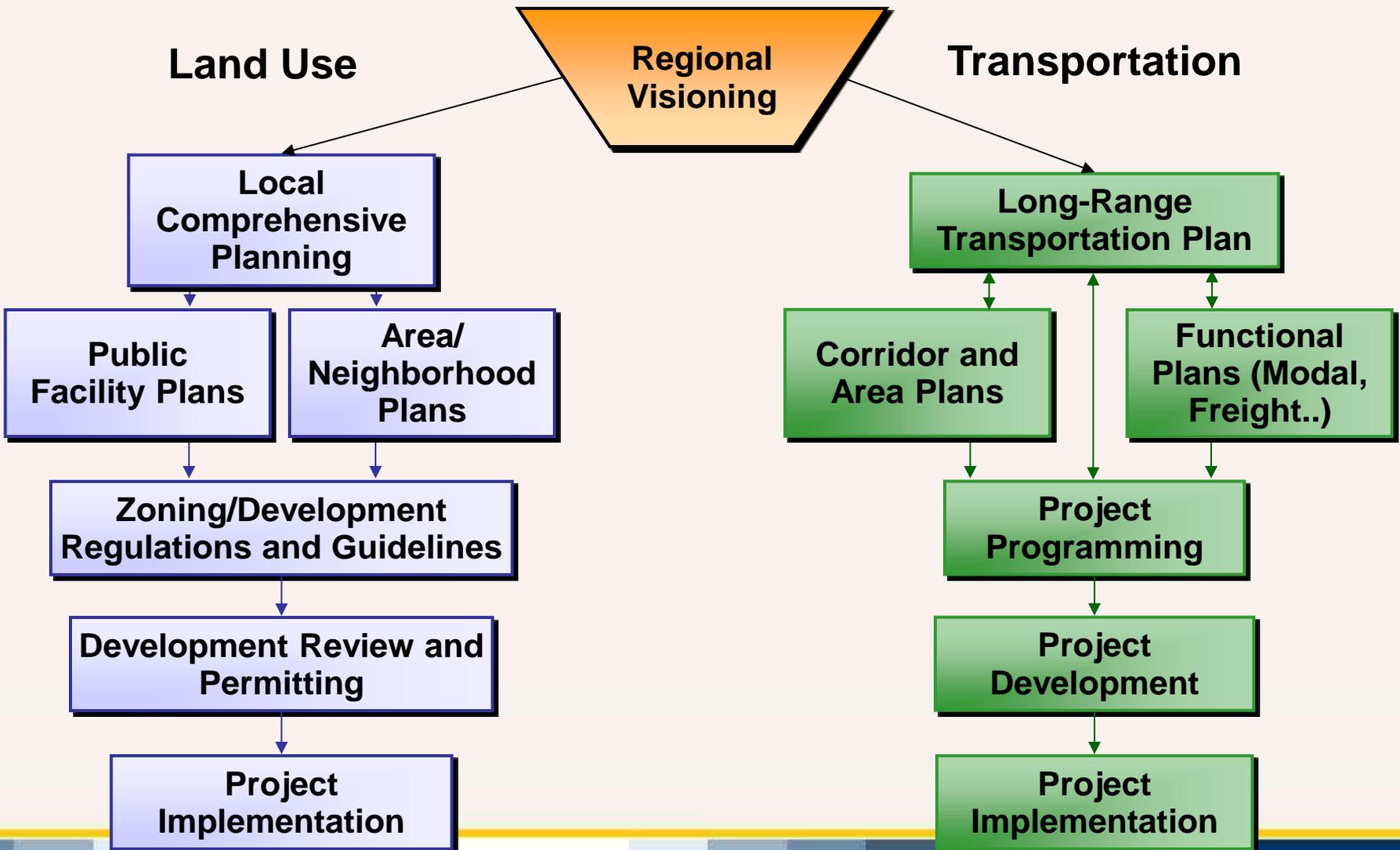


**Collaboration with stakeholders and the public**

# ND Planning Resource Guide



# Linking Land Use and Transportation



# Use All the Available Strategies

- Intelligent Transportation Systems
- Transit Facilities and Services
- Intermodal Facilities
- Traffic Engineering
- Bike/ Walkways
- Access Management
- Highway Capacity



- Planning and Zoning
- Phasing/ Adequacy
- Urban Design
- Mixed Use
- Density

Alternative Work  
Schedules

Pricing

Alternate Modes

Alternative  
Work  
Locations

Employer  
Support  
Programs

Source: Toolbox for Alleviating Traffic Congestion and Enhancing Mobility, 1997.

# A Few Key Points

- Transportation decisions are important in shaping communities and quality of life.
- Transportation and Land Use are intertwined. (one interactive system)
- Transportation and land use decisions are often disconnected.
- Planning process to achieve better informed decision making.



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